

WHAT IS CLAIMED IS:

1. A method for operating an internal combustion engine having an intake manifold and a ventilation duct of ventilation system, comprising:

determining at least one pressure differential between one of (i) an intake-manifold pressure and a pressure in the ventilation duct and (ii) an ambient pressure and the pressure in the ventilation duct; and

determining a fault in the ventilation system as a function of the at least one pressure differential.

2. The method according to claim 1, wherein the ventilation system includes one of (i) a tank ventilation system and (ii) a crankcase ventilation system conducted to the intake manifold of the internal combustion engine

3. The method according to claim 1, further comprising generating a first pressure differential between the intake-manifold pressure and the pressure in the ventilation duct, wherein the determining step includes determining a fault in the ventilation system if the first pressure differential exceeds a first preselected value.

4. The method according to claim 1, further comprising generating a second pressure differential between the ambient pressure and the pressure in the ventilation duct, wherein the determining step includes determining a fault in the ventilation system if the second pressure differential falls below a second preselected value.

5. The method according to claim 1, further comprising:  
generating a first pressure differential between the pressure in the ventilation duct and the intake-manifold pressure; and

generating a second pressure differential between the ambient pressure and the pressure in the ventilation duct;

wherein the determining step includes determining a fault in the ventilation system if the first pressure differential is greater than the second pressure differential.

6. The method according to claim 1, wherein the determining step includes determining a fault only if, in addition, a difference between a maximum intake-manifold pressure and a minimum intake-manifold pressure is greater than a third preselected value.

7. The method according to claim 1, further comprising low-pass filtering at least one of (i) the at least one pressure differential and (ii) the intake-manifold pressure.

8. The method according to claim 1, further comprising generating a maximum value from at least one of (i) the at least one pressure differential and (ii) the intake-manifold pressure.

9. The method according to claim 1, further comprising generating a minimum value from the intake-manifold pressure.

10. A device for operating an internal combustion engine having an intake manifold and a ventilation duct of a ventilation system, comprising:

a detector configured to ascertain at least one pressure differential between one of (i) an intake-manifold pressure and a pressure in the ventilation duct and (ii) an ambient pressure and the pressure in the ventilation duct; and

a diagnostic unit configured to diagnose a fault in the ventilation system as a function of the at least one pressure differential.

11. The device according to claim 10, wherein the ventilation system includes one of (i) a tank ventilation system and (ii) a crankcase ventilation system that is

conducted to the intake manifold of the internal combustion engine.

12. A device for operating an internal combustion engine having an intake manifold and a ventilation duct of a ventilation system, comprising:

means for ascertaining at least one pressure differential between one of (i) an intake-manifold pressure and a pressure in the ventilation duct and (ii) an ambient pressure and the pressure in the ventilation duct; and

means for diagnosing a fault in the ventilation system as a function of the at least one pressure differential.

13. The device according to claim 12, wherein the ventilation system includes one of (i) a tank ventilation system and (ii) a crankcase ventilation system that is conducted to the intake manifold of the internal combustion engine.